

REMARKS

The application has been amended and is believed to be in condition for allowance.

There are no formal matters pending.

Substantive Issues - Section 103

The Official Action rejected claims 42-44, 70 and 76 under 35 USC 103(a) as being unpatentable over Viljoen (EP 0559357; "VILJOEN" in view of Risi (U.S. 2002/0154012; "RISI"), Buehler (U.S. 2004/0119848; "BUEHLER") and Ballantyne (U.S. 2003/0184440; "BALLANTYNE").

The Official Action rejected claims 57, 71, and 78 under 35 USC 103(a) as being unpatentable over VILJOEN, in view of RISI, BUEHLER, BALLANTYNE, and further in view of and Burley (U.S. 5,001,558; "BURLEY").

The Official Action rejected claim 80 under 35 USC 103(a) as being unpatentable over VILJOEN, in view of RISI, BUEHLER, BALLANTYNE, and further in view of Eckstein (U.S. 7,081,818; "ECKSTEIN").

The Official Action rejected claim 45 under 35 USC 103(a) as being unpatentable over VILJOEN, in view of RISI, BUEHLER, BALLANTYNE, and further in view of Garoutte (U.S. 2010/0074472; "GAROUTTE").

The Official Action rejected claim 50 under 35 USC 103(a) as being unpatentable over VILJOEN, in view of RISI,

BUEHLER, BALLANTYNE, GAROUTTE, and further in view of Brodsky (U.S. 2008/0226127; "BRODSKY").

The Official Action rejected claims 46 and 51 under 35 USC 103(a) as being unpatentable over VILJOEN, in view of RISI, BUEHLER, BALLANTYNE, and further in view of Trajkovic (U.S. 2002/0167408; "TRAJKOVIC").

The Official Action rejected claims 53 and 69 under 35 USC 103(a) as being unpatentable over VILJOEN, in view of RISI, BUEHLER, BALLANTYNE, TRAJKOVIC and further in view of Glier (U.S. 6,760,061; "GLIER").

The Official Action rejected claim 54 under 35 USC 103(a) as being unpatentable over VILJOEN, in view of RISI, BUEHLER, BALLANTYNE, GLIER, and further in view of Petrovsky (U.S. 4,184,156; "PETROVSKY").

The Official Action rejected claim 55 under 35 USC 103(a) as being unpatentable over VILJOEN, in view of RISI, BUEHLER, BALLANTYNE, TRAJKOVIC, GLIER, and BRODSKY.

The Official Action rejected claim 56 under 35 USC 103(a) as being unpatentable over VILJOEN, in view of RISI, BUEHLER, BALLANTYNE, TRAJKOVIC, GLIER, and ECKSTEIN.

The Official Action rejected claims 47 and 48 under 35 USC 103(a) as being unpatentable over VILJOEN, in view of RISI, BUEHLER, BALLANTYNE, and BRODSKY.

The Official Action rejected claim 49 under 35 USC 103(a) as being unpatentable over VILJOEN, in view of RISI,

BUEHLER, BALLANTYNE, and further in view of Flickner et al (U.S. 2003/0107649; "FLICKNER").

The Official Action rejected claim 52 under 35 USC 103(a) as being unpatentable over VILJOEN, in view of RISI, BUEHLER, BALLANTYNE, TRAJKOVIC, GLIER, and FLICKNER.

The Official Action rejected claims 58-60 and 67 under 35 USC 103(a) as being unpatentable over VILJOEN, in view of RISI, BUEHLER, BALLANTYNE, BURLEY, and TRAJKOVIC.

The Official Action rejected claim 68 under 35 USC 103(a) as being unpatentable over VILJOEN, in view of RISI, BUEHLER, BALLANTYNE, BURLEY, TRAJKOVIC, and further in view of Inaba (U.S. 2002/0030594; "INABA").

The Official Action rejected claim 61 under 35 USC 103(a) as being unpatentable over VILJOEN, in view of RISI, BUEHLER, BALLANTYNE, BURLEY, TRAJKOVIC, and further in view of Prehn (U.S. 2003/0117280; "PREHN").

The Official Action rejected claims 62 and 63 under 35 USC 103(a) as being unpatentable over VILJOEN, in view of RISI, BUEHLER, BALLANTYNE, BURLEY, TRAJKOVIC, PREHN, and further in view of Denimarck (U.S. 2003/0018522; "DENIMARCK").

The Official Action rejected claim 64 under 35 USC 103(a) as being unpatentable over VILJOEN, in view of RISI, BUEHLER, BALLANTYNE, BURLEY, TRAJKOVIC, PREHN, and further in view of Nahata (U.S. 2001/0052839; "NAHATA").

The Official Action rejected claims 65 and 66 under 35 USC 103(a) as being unpatentable over VILJOEN, in view of RISI, BUEHLER, BALLANTYNE, BURLEY, TRAJKOVIC, PREHN, and FLICKNER.

The Official Action rejected claim 72 under 35 USC 103(a) as being unpatentable over VILJOEN, in view of RISI, BUEHLER, BALLANTYNE, and GLIER.

The Official Action rejected claims 73 and 74 under 35 USC 103(a) as being unpatentable over VILJOEN, in view of RISI, BUEHLER, BALLANTYNE, GLIER and PETROVSKY.

The Official Action rejected claim 77 under 35 USC 103(a) as being unpatentable over VILJOEN, in view of RISI, BUEHLER, BALLANTYNE, GLIER, PETROVSKY, and further in view of Waehner et al. (U.S. 2007/0133844; "WAEHNER").

The Official Action rejected claim 75 under 35 USC 103(a) as being unpatentable over VILJOEN, in view of RISI, BUEHLER, BALLANTYNE, TRAJKOVIC and PREHN.

The Official Action rejected claim 79 under 35 USC 103(a) as being unpatentable over VILJOEN, in view of RISI, BUEHLER, BALLANTYNE, TRAJKOVIC, PREHN, and FLICKNER.

The foregoing rejections are respectfully traversed.

Arguments in Support of Patentability

A.

In rejecting claim 42, the Official Action presents VILJOEN as the primary reference alleged to teach the features recited, but concedes that VILJOEN does not teach the recited step of analyzing the profile, and particularly fails to teach the analysis sub-steps of:

filtering zones of the profile in order to mask the zones or to eliminate interference zones;

dividing the profile into zones which are processed separately; and

as a function of the analyzing step, the access door is opened or remains closed.

The Official Action contends that the skilled person would have been motivated from two other references to teach the foregoing sub-steps.

The Official Action offers BUEHLER as teaching the sub-step of dividing the profile into zones which are processed separately. BUEHLER discloses a detection system in which a monitored area is divided up into a series of image boundary regions for tracking objects. However, this feature as disclosed by BUEHLER does not teach or even suggest this sub-step of the claim.

BUEHLER is directed to automating the classification of image regions in video frames, in order to better track objects

that move out of the field of a first camera and into the field of another (paragraphs [0012]-[0014])). Particularly, BUEHLER teaches video analysis algorithms to extract information from the video signals of cameras (paragraph [0056]), wherein the image is represented as an obstruction matrix that associates discrete regions of the image with "counts" that represent objects in the regions (paragraphs [0101]-[0104])). Nothing in these disclosures, however, teaches or suggests determination or analysis of a "profile of a person" as recited in the claim.

The "profile of a person", as it is used in the claim, targets the signal given by the infra-red cells relative to a detected person. Claim 42 recites the dividing of this profile into zones, as opposed to a monitored "area" as disclosed by BUEHLER. With this feature, a profile of a person, previously determined by the infra-red cells (after processing one or more images of the monitored area), is divided into zones.

In contrast, BUEHLER discloses a very different feature wherein division is applied to an "area" monitored by a camera so that a series of image boundary regions are produced for keeping track of an object. Nothing in BUEHLER's "area" teaches or suggests that "a profile of a person" is either determined or analyzed, as recited by claim 42. Accordingly it is respectfully submitted that no combination with BUEHLER would lead to this feature, and thus this feature is not shown to be obvious.

Further, the Official Action contends that BALLANTYNE discloses the sub-step of filtering zones of a person's profile to mask the zones or eliminate interference zones. BALLANTYNE discloses an object detection system in which ambient or white light is considered to be "noise". However, this feature as disclosed by BALLANTYNE does not teach or even suggest the filtering sub-step of the claim.

Claim 42 recites filtering zones of the person's profile to mask the zones or to eliminate interference zones. "Noise", as disclosed by BALLANTYNE, does not read on an interference zone as recited in the claim. An "interference zone" is a geometrical zone on an image where a first zone and a second zone are overlapping. In contrast, "noise" is the undesired part of an electrical signal caused by the environment (for example the ambient light) in a measured signal (see, e.g., paragraph [0063]).

Accordingly it is respectfully submitted that BALLANTYNE fails to teach the filtering sub-step of claim 42 and no combination with BALLANTYNE would lead to this feature. Accordingly, this feature also is not shown to be obvious.

Further, the Official Action concedes that none of VILJOEN, BUEHLER, or BALLANTYNE discloses controlling an access door, as recited as the third sub-step of the recited profile analysis. The Official Action offers RISI as overcoming this deficiency. However, RISI discloses the opening or closing of a

doorway on the basis of detecting a security risk/situation, such as detecting contraband, but not in function of an analyzing step comprising any one of the sub-steps above.

It is therefore respectfully submitted that the proposed combination of VILJOEN with RISI and BUEHLER and BALLANTYNE fails to teach all the features recited in claim 42.

It is also respectfully submitted that the proposed combination of VILJOEN with RISI and BUEHLER and BALLANTYNE also fails to teach all the features recited in claim 70, based at least on the reasons set forth above as to claim 42.

Accordingly, it is respectfully submitted that claims 42 and 70 are allowable. It is further respectfully submitted that the claims depending from claims 42 and 70 are allowable at least for depending respectively from allowable parent claims.

B.

It is further respectfully submitted that the rejections of claims 42 and 70 under Section 103 are improper because the skilled person would not have reasonably modified VILJOEN with all of BUEHLER, BALLANTYNE, and RISI to arrive at the claimed invention.

As is well known, it is incumbent upon the Examiner to offer a reasonable explanation why the skilled person would have combined the teachings of a plurality of references such to modify a primary reference and arrive at a workable, satisfactory result. Although U.S. practice does not limit the number of

references that may be so combined, a reasonable motivation must have existed for each modification of the primary, and each reference must be considered as a whole.

As to the references offered by the Official Action, The goals pursued by the cited references are:

VILJOEN is directed to avoiding false alarms in an area monitored by optical beams (not cameras), particularly when the area is large (page 2, lines 3-9);

BUEHLER is directed to keeping track of an object in an area with several cameras, by analyzing image backgrounds (paragraph [0013]).

BALLANTYNE is directed to detecting a shopping cart and inspecting the bottom tray for the presence of items (paragraph [0014]); and

RISI is directed to detection of security/risk situations by detecting (metallic) weapons or chemical products (paragraph [0008]).

In order to show obviousness, a reasonable rationale must have been present to have modified VILJOEN with each of BUEHLER, BALLANTYNE, and RISI. Here, even if the references are loosely related in that they each are concerned with monitoring systems, the features and objectives of BUEHLER, BALLANTYNE, and RISI, taken as a whole, do not lend to VILJOEN's express objective of eliminating false alarms resulting from interrupted light beams.

Particularly, VILJOEN is expressly directed to solving this problem without the use of (expensive) cameras (page 2, lines 6-9). BUEHLER, in contrast, is expressly directed to using cameras. BALLANTYNE also employs a camera (e.g., an "area-imaging sensor" that generates a "digital image corresponding to the item detected", paragraphs [0029]-[0031]). RISI teaches metal detectors and chemical detectors.

Given VILJOEN's express intent to improve the performance of a system based on light-interruption technology (page 2, lines 10-13), without introducing additional or complementary sensor technology (e.g., cameras), the skilled person would have had no reasonable rationale to look to any of BUEHLER, BALLANTYNE, and RISI. On the contrary, as the technology of VILJOEN is so different from the imaging and metal/chemical detection devices of the references, there would have been no reasonable expectation that combining the teachings of the references as proposed by the Official Action would have led to a successful, satisfactory result.

It is therefore respectfully submitted that no reasonable and objective rationale exists for combining the references as proposed by the Official Action, and therefore obviousness is not shown.

Further, none of the disclosures of the references, whether considered individually or in combination, would have led the skilled person to the problem and solution of the invention

thereby to suggest a combination of features as recited in the claim.

Accordingly, it is respectfully submitted that independent claim 42 is allowable over VILJOEN, RISI, BUEHLER and BALLANTYNE. It is also respectfully submitted that the claims depending from claim 42 are allowable at least for depending from a patentable parent claim.

It is also respectfully submitted that independent claim 70, and the claims depending therefrom are allowable over VILJOEN, RISI, BUEHLER and BALLANTYNE for at least the same reasons set forth above as to claim 42.

Withdrawal of the rejections under Section 103 is thereby respectfully requested.

C.

In addition, it is respectfully submitted that the following references, GAROUTTE, BRODSKY, and WAEHNER and are not proper prior art to the instant application. The instant application is a National Stage application to an International Application filed in accordance with the PCT on July 8, 2004. GAROUTTE, BRODSKY, and WAEHNER were published in 2010, 2008, and 2007, respectively, and filed in 2009, 2008, and 2006, respectively. Accordingly, the instant application has a filing date effective in the U.S. that pre-dates each of GAROUTTE, BRODSKY, and WAEHNER.

It is further respectfully submitted that the instant application also ECKSTEIN. ECKSTEIN has a filing date of May 17, 2004. However the instant application claims priority to French Application 04/02729 with a filing date of March 17, 2004 (a certified copy of this priority document was filed with the Office on September 15, 2006). It is therefore respectfully submitted that ECKSTEIN, also, is not proper prior art to the instant application.

Accordingly, it is respectfully submitted that, in addition to the reasons set forth above as to independent claims 42 and 70, each of the rejections based on any of BUEHLER, GAROUTTE, WAEHNER, or ECKSTEIN must be withdrawn.

From the foregoing, it will be apparent that Applicants have fully responded to the July 22, 2011 Official Action and that the claims as presented are patentable. In view of this, Applicants respectfully request reconsideration of the claims, as presented, and their early passage to issue.

In order to expedite the prosecution of this case, the Examiner is invited to telephone the attorney for Applicants at the number provided below to discuss any matters that might be helpful to advancing the case toward allowance.

The Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 25-0120 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

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